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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ALLAN L. SAMSON and MICHAEL KEILTY

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Appeal 2007-2617  
Application 09/489,864  
Technology Center 2400

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Decided: October 29, 2008

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Before JOSEPH L. DIXON, ALLEN R. MACDONALD, and  
JEAN R. HOMERE, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the  
Examiner's final rejection of claims to 1-44. We have jurisdiction under  
35 U.S.C. § 6(b).

We AFFIRM.

## BACKGROUND

Appellants' invention relates to a system for preventing tampering with a signal conditioner/sensor remote from a host system using authentication information from the signal conditioning circuitry. (Spec. 1). An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A system for preventing-tampering with signal conditioning circuitry in electronics that determines a parameter from signals received from sensors, said system comprising:

a host system that receives data from and sends data to said signal conditioning circuitry;

a processing unit in said host system;

a memory connected to said processing unit;

instructions for directing said processing unit in said host system to periodically transmit a request for authentication information from said signal conditioning circuitry, receive said authentication information from said signal conditioning circuitry in response to said request, comparing said authentication information with initial information, and signal a tampering condition in the signal conditioning circuitry in response to said authentication information not being equal to said initial information; and

a media readable by said processing unit for storing said instructions.

#### PRIOR ART

The prior art references of record relied upon by the Examiner in rejecting the appealed claims are:

Sipin	US 3,355,944	Dec. 5, 1967
Lumsden	US 4,388,690	Jun. 14, 1983
Oyer	US 4,933,668	Jun. 12, 1990
Leigh-Monstevens	US 5,014,038	May 7, 1991
Kuo	US 6,289,456 B1	Sep. 11, 2001 (Aug. 19, 1998)
Barger	US 6,526,839 B1	Mar. 4, 2003 (Nov. 1, 1999)

#### REJECTIONS

Claims 1, 12, 23, and 34 (and impliedly all claims 1-44) stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement wherein the claim(s) contains subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The Examiner withdrew the rejection under 35 U.S.C. § 112, second paragraph.

In the Answer, claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Lumsden and claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden in view of Barger in further view of Sipin.

However, from our review of the prosecution history, we note the following:

(1) In the Final Rejection, dated May 6, 2004, the Examiner rejects the claims as detailed below.

(2) In the Appeal Brief, dated November 17, 2006, Appellants then restate those rejections as being under appeal.

(3) In the Examiner's Answer, dated January 19, 2007, the Examiner, at page 2 of the Answer, acknowledges that Appellants' statement of the rejections on appeal in the Brief to be correct.

We will address the Examiner's rejections as enumerated in the Final Rejection rather than the merely restated rejection of claims 1 and 12, which appear to be addressed by the Examiner merely as the representative claims of the two groupings which were substantively addressed by Appellants in the Brief.

While Appellants do list out multiple general assertions relative to individual claims in the Appeal Brief, we find that each of those generalized assertions is based upon the argument advanced with respect to independent claim 1 and independent claim 12. Therefore, we view the Examiner's statement of the rejection in the Answer, which is directed to just those two representative claims to actually have rejected all of the claims as set forth in the Final Rejection.

Although Appellants have not explicitly enumerated in the Appeal Brief the rejections of the other claims, nothing in the record shows that the Examiner has withdrawn the rejections of these claims as compared to the rejection under 35 U.S.C. § 112, second paragraph which the Examiner has expressly stated is withdrawn.

Therefore, we address the claims as rejected as follows from the Final Rejection.

Claims 1-3, 8, 9, 34-36, 41, and 43 stand rejected under 35 U.S.C. § 102(b) as being anticipated Lumsden.

Claims 5 and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden, as applied to claims 1 & 34 above, in view of Leigh-Monstevens.

Claims 4, 10, 11, 37, 42, and 44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden, as applied to claims 1 & 34 above, in view of Kuo.

Claims 6 and 7, as best understood, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden, as applied to claim 1 above, in view of Oyer.

Claims 39 and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden in view of Leigh-Monstevens as applied to claim 38 above, in further view of Oyer.

Claims 12-14, 19-20, 23-25, 30, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden in view of Barger in further view of Sipin.

Claims 16 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden in view of Barger in view of Sipin, as applied to claims 12 and 23 above, in further view of Leigh-Monstevens.

Claims 15, 21, 22, 26, 32, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden in view of Barger in view of Sipin, as applied to claims 12 and 23 above, in further view of Kuo.

Claims 17 and 18 stand rejected under 35 U.S.C. § 103(a) as being

unpatentable over Lumsden in view of Barger in view of Sipin in view of Leigh-Monstevens, as applied to claim 16 above, in further view of Oyer.

Claims 28 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden in view of Barger in view of Sipin, as applied to claim 23 above, in further view of Oyer.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lumsden in view of Barger further in view of Sipin.

Rather than reiterate the conflicting viewpoints of the Examiner and Appellants regarding the above-noted rejection, we refer to the Examiner's Answer (mailed Jan. 19, 2007) for the reasoning in support of the rejections, and to Appellants' Brief (filed Nov. 17, 2006) and Reply Brief (filed Feb. 6, 2007) for the arguments thereagainst.

## OPINION

In reaching our decision in this appeal, we have carefully considered Appellants' Specification and claims, the applied prior art references, and the respective positions articulated by Appellants and the Examiner. As a consequence of our review, we determine the following.

### 35 U.S.C. § 112, First Paragraph

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. *See Vas-Cath*,

*Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991) and *In re Kaslow*, 707 F.2d 1366 (Fed. Cir. 1983).

From our review of the present claim language and Appellants' Specification, we find that Appellants have shown support in the originally filed Specification for the invention is recited in independent claims 1, 12, 23, and 34, as addressed by the Examiner. While we do find Appellants' claimed invention to be slightly difficult to interpret the scope, we find the proposed amendments, filed June 24, 2004, to more clearly show and describe the claimed invention. We address the claims as presented on appeal and find an adequate written description for the invention as claimed.

#### 35 U.S.C. § 102

"[A]nticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim . . . ." *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) (citing *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1457 (Fed. Cir. 1984)). "[A]bsence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571 (Fed. Cir. 1986).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Analysis of whether a claim is patentable over the prior art under 35 U.S.C. § 102 begins with a determination of the scope of the claim. We determine the scope of the claims in patent applications not solely on the basis of the claim language, but upon giving

claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The properly interpreted claim must then be compared with the prior art.

Appellants have the opportunity on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006).

In rejecting claims under 35 U.S.C. § 102, “[a] single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation.” *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005) (citation omitted).

With respect to independent claim 1, we have reviewed the Examiner's rejections as set forth in the Final Rejection and in the Answer and the teachings of Lumsden and find that the Examiner has set forth a sufficient initial showing of anticipation of the invention as recited in independent claim 1. Therefore, we look to Appellants' Briefs to show error in the Examiner's initial showing of anticipation.

In addition to those teachings expressly set forth by the Examiner in this statement of the rejection in the Final Rejection and those in the Answer, we note that Lumsden teaches at columns 2-3 that the central computer scans all transponders every 30 seconds. Each transponder, at the time of installation, has an identification code hardwired therein to assist in a low probability of error in the transmission of instructions and data. Each time the central computer communicates with an individual transponder, the transponder identification is included and each response thereto similarly contains the transponder identification. We find that this transponder

identification data to be authentication data, as recited in independent claim 1. Here, the use of the identification code can represent a tampering with the signal conditioning circuitry wherein if the signal conditioning circuitry has the wrong identification code, this would identify a possible tampering with the signal conditioning circuitry by the response to the central computer having the wrong transponder identification code. The central computer then compares the authentication information with initial information which is stored at the central computer about the totality of all the transponder units. If there is any discrepancy between the data received from the transponder to the information stored at the central computer, an error may be deemed to have occurred. At column 6, lines 42-45, Lumsden teaches that specific circuitry is built into the system to test the quality of the received message to insure that it has been correctly sent, received, and decoded. Therefore, Lumsden would not process data from a transponder that did not match an identification or authentication comparison and some indication/signal should then be generated by the host system. While the teachings of Lumsden more clearly evidence the authentication comparison at the transponder unit, as discussed in column 2, we find that the two way communication at the host end of Lumsden is similar to that of the transponder end.

Furthermore, from our review of Appellants' Specification, we do not find an express definition of the claim terms "tampering," "authentication," and "signal a tampering condition." Finding no express definitions in the Specification and Appellants have not identified any specialized interpretation based upon the disclosure or the pertinent prior art, we give these terms their broadest reasonable ordinary and customary meanings, and

find that the teachings of Lumsden are clearly within the broadest reasonable interpretation. Therefore, we will address Appellants' argument which has been presented in the Briefs.

Appellants argue that Lumsden does not teach or suggest signaling an error condition that indicates tampering in the single conditioning circuitry and the signaling being in response to the authentication information not being equal to the initial information. (App. Br. 11). We do not find Appellants' argument to be commensurate in scope with the express language of independent claim 1 wherein, the claim language does not recite "an error condition that indicates a tampering." Therefore Appellants' argument is not persuasive of error in the Examiner's initial showing of anticipation. Appellants argue that Lumsden does not disclose any comparison of received authentication information to initial information. (App. Br. 11 and Reply Br. 5-6). We disagree with Appellants, as discussed above. We find that Lumsden discloses two way communication using the identification code of the transponder in each communication. Therefore, we do not find Appellants' argument persuasive of error in the Examiner's initial showing of anticipation. Appellants present an alternative interpretation of the teachings of Lumsden with respect to the initial authentication information being equated to the electrical power consumption thresholds of Lumsden. (App. Br. 12 and Reply Br. 3-4). We do not find Appellants' argument to be persuasive of the error, as discussed above.

Appellants argue that Lumsden does not teach or suggest "requesting" or "receiving" authentication information as in the present application. (App. Br. 12). We do not find Appellants' argument persuasive with respect

to "as in the present application" since we find no express definitions recited in the Specification or identified by Appellants. Therefore, Appellants' argument is not persuasive of error in the Examiner's initial showing of anticipation. We find Appellants' argument to be based on mere conclusion without identifying specific definitions or support in the original Specification. Therefore, we do not find Appellants' argument persuasive of error in the Examiner's reliance upon the teachings of Lumsden to show anticipation of independent claim 1. Therefore, we will sustain the rejection of independent claim 1 and independent claim 34 grouped therewith by Appellants and dependent claims 2-3, 8-9, 35, 36, 41, and 43 grouped therewith by Appellants at page 12 of the Brief.

35 U.S.C. § 103(a)

Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

*KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *Id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield

predictable results." *Id.* The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740.

The Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR*, 127 S. Ct. 1727, 1739 (2007)). The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id.* at 1162 (citing *KSR*, 127 S. Ct. at 1740-41).

One cannot show nonobviousness by attacking references individually where the rejections are based on a combination of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

With respect to independent claim 12, Appellants rely upon the same base argument which was asserted that Lumsden is deficient with respect to comparing authentication information to initial information and does not disclose signaling an error condition. (App. Br. 13-14). As discussed above, we do not find a deficiency as argued by Appellants. Therefore, we will sustain rejection of independent claim 12 and independent claim 23 grouped therewith by Appellants.<sup>1</sup> Similarly, we sustain the rejection of dependent

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<sup>1</sup> We note numerous references throughout pages 12-15 of the Appeal Brief to independent claims 35 and 21, but they should reference independent

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claims 4-7, 10-12, 15-22, 24-33, 37-40, 42, and 44 grouped therewith by Appellants.

## CONCLUSION

In summary, we have reversed the rejection of claims 1-44 under 35 U.S.C. § 112, first paragraph; we have sustained the rejection of claims 1-3, 8-9, 34-36, 41, and 43 under 35 U.S.C. § 102; and we have sustained the rejection of claims 4-7, 10-12, 15-20, 23-30, 37-40, 42, and 44 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

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claims 34 and 23, and we address those claims as set forth in the Appendix of the Appeal Brief.